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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,496	01/22/2004	Brant L. Candelore	80398P263C	5228

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EXAMINER	
SUN, SCOTT C	

ART UNIT	PAPER NUMBER
2182	

MAIL DATE	DELIVERY MODE
09/15/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/762,496	CANDELORE ET AL.	
	Examiner	Art Unit	
	SCOTT SUN	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-24 and 33-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-24 and 33-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicant's amendments to the claims filed on 5/21/2008 has been noted and entered.

Response to Arguments

2. Applicant's arguments filed 5/21/2008 have been fully considered but they are not persuasive. Applicant's arguments are summarized as:

a. Prior art of record does not teach "an adapter being different than the card having a first form factor".

b. Prior art of record does not teach "the adapter to use OOB signals to send a serial transport stream to the card having the second form factor".

3. In response to argument 'a', examiner notes that the "mother card" disclosed by prior art, Harari, corresponds to the adapter in applicant's claims. The mother card is used to receive the daughter card so that a system that ordinarily does not support the daughter card can now use the daughter card through the mother card. In that regard, the mother card is exactly an adapter. However, the mother card is inserted into a standard interface of the host system, not into a unique interface that only accepts mother cards. In Harari's teachings, PCMCIA interface is used as an example, which is a commonly known smartcard interface. Therefore, it is clear that besides the mother card, any card conforming of the PCMCIA interface would be able to inserted into the host interface. In other words, the interface that the mother card fits in supports not only

the mother card (the adapter) but also other smartcards of matching interface standard (in this case, any PCMCIA smartcard). Harari clearly teaches these features in the background (e.g. column 2, lines 15-39).

4. In response to argument 'b', examiner notes that the mother card communicates with the daughter card using the daughter card's native interfaces, which is different from the interface which the mother card uses to communicate with the host system. Therefore, this data communication between the mother and daughter cards is clearly out of band from the host's original data lines. These features are also clearly supported in Harari (column 12, lines 13-27).

5. Having responded to all of applicant's arguments, examiner notes that prior art of record still provides a valid ground of rejection as attached below. Modifications are made in response to the claim amendments and in light of the arguments.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 14-23 and 33-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (hereinafter APA) in view of Harari et al (Patent #5,886,145, hereinafter Harari).

8. Regarding claim 14, APA discloses an apparatus (set-top box, background, page 3) comprising:

a conditional access module (NRSS-B module 100, figure 1), having a slot sized to receive a card having a first form factor (NRSS-B form factor cards such as PCMCIA, page 3);

APA does not disclose explicitly using an adapter in the slot to receive a card having a different form factor. However, Harari discloses an adapter being different than the card having a first form factor (mother card 10, figure 1, which fits into PCMCIA interface that ordinarily hold smartcards, column 2, lines 15-39) and configured for insertion into a slot (slot 212 of host system) and for receipt of a card (daughter card 20) having a second form factor different than the first form factor (a memory card native form factor; column 6, line 59 – column 7, line 24; column 12, lines 13-27), the adapter to use OOB signals to send a serial transport stream to the card having the second form factor (serial communication between mother card and daughter card; column 8, lines 19-23, communication between mother and daughter card, which uses the daughter card's native interface, is different from that of the host, which is PCMCIA, column 12, lines 13-27). Teachings of APA and Harari are from the same field of smartcard interfaces.

Therefore, it would have been obvious at the time of invention for a person of ordinary skill in the art to combine teachings of APA and Harari by using a mother card adapter in the set-top box system of APA for the benefit to minimizing the size and cost of the host system (column 3, lines 31-35).

9. Regarding claim 15, APA and Harari combined disclose claim 14, and Harari further discloses wherein the card having the first form factor is a NRSS-B module (PCMCIA, column 6, lines 63-65) and the card having the second form factor is a NRSS-A module (smartcard such as flash memory card, column 7, lines 24-36).

10. Regarding claim 16, APA and Harari combined disclose claim 15, and Harari further discloses wherein the NRSS-B module is a PCMCIA card and the NRSS-A module is a smart card (PCMCIA, column 6, lines 63-65, smartcard such as flash memory card, column 7, lines 24-36).

11. Regarding claim 17, APA and Harari combined disclose claim 14, and APA further discloses a first converter (descrambler 140) to convert a scrambled data stream in a parallel format into a serial signal for output to the adapter (background, page 3), and a second converter (copy protection module 160) to receive a descrambled serial data stream from the adapter and to convert the descrambled serial data stream into a descrambled data stream in a parallel format (background, page 3). Examiner further notes that scrambling/descrambling techniques are well known in the art of set-top boxes.

12. Regarding claim 18, APA and Harari combined disclose claim 14, and APA further discloses wherein the conditional access module further comprises a first switch coupled to the first converter and a second switch coupled to the second converter (page 3, background). Examiner notes that switches for the two converters are implied given the scrambling and descrambling functionalities of the set-top box.

13. Regarding claim 19, APA and Harari combined disclose claim 18, and APA further discloses wherein the first switch of the conditional access module receives as input the scrambled data stream in the parallel format and the second switch of the conditional access module output the descrambled data stream in the parallel format (page 3, background). Similar to claim 18, examiner notes that the switches for receiving scrambled data and outputting descrambled data are implied given the set-top box functions. Harari further indicates that the mother card can also incorporate some of these functionalities (column 8, lines 58-64).

14. Regarding claim 20, APA and Harari combined disclose claim 16, and Harari further discloses wherein the adapter is configured to read data from ISO contacts of the smart card (native interface of the daughter card, column 12, lines 15-24). Examiner further notes that any standard that the daughter card uses would have been an obvious design choice at the time of invention.

15. Regarding claim 21, APA and Harari combined disclose claim 16, and Harari further discloses wherein the first switch of the conditional access module is configured to provide data and cloak signals when the PCMCIA card is inserted in lieu of the adapter (column 6, lines 46-50). Examiner notes that the PCMCIA interface of the host would accept both the mother card and regularly PCMCIA cards.

16. Regarding claim 22, APA and Harari combined disclose claim 17, and Harari further discloses wherein the conditional access module further comprises a third switch coupled to the first converter to receive the serial signal, an output of the third switch is

coupled to an out of band pin of the adapter (serial connector pins of the mother card, column 8, lines 20-23).

17. Regarding claim 23, APA and Harari combined disclose claim 22, and Harari further discloses wherein the third switch of the conditional access module is coupled to receive as input at one data bit from the first switch and the serial signal from the first converter (column 8, lines 13-23).

18. Regarding claim 24, APA and Harari combined disclose claim 14, and APA further discloses wherein the apparatus of claim 14 is a set-top box (top of page 3, background).

19. Regarding claims 33-43, examiner notes that these claims are substantially similar to claims 14-24 above. In particular, the switching and converting elements are substantially to those of claims 17-19. The same ground of rejection is applied.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SCOTT SUN whose telephone number is (571)272-2675. The examiner can normally be reached on Mon-Thu, 10:00am-8pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

/Tariq Hafiz/
Supervisory Patent Examiner, Art Unit 2182